THE NATION’S RESEARCH LEADER IN THE PREVENTION AND TREATMENT OF HEART, LUNG, BLOOD, AND SLEEP DISORDERS
NIH-appointed **Biomedical Workforce Working Group (2012)** and **Physician-Scientist Workforce Working Group (2014)**:

- Physician scientist workforce (PSW): clinically-trained and engaged in independent biomedical research (MD, MD/PhD, DO, DDS/DMD, DVM/VMD, RN/PhD)

- Growing deficiency in the pool of physician scientists who are sufficiently trained to become academic, independent, tenure-track scientists
  - MD-PhD programs are successful in training academicians (75-80% independent academic faculty), but are only 3% of the MD pool
  - The MD-only pool entering academic scientific careers is diminishing at a significant rate

- Despite robust NIH investment in PSW training/LRP, emerging PS research workforce has declined over the past 5 years; consequently this workforce is aging
Physician (Clinician) Scientist Challenges

- Medical education costs
- Lengthy training to obtain clinical and scientific research competency
  - Discontinuity of research training from medical school to faculty
  - Vulnerable transition between clinical/research fellowship and independent research endeavor
- Competing demands with clinical/teaching requirements, especially as it relates to salary support
- Insufficient mentorship
PBRNs as a primary care researcher incubator

- Integration of research and clinical care
- Developmental Network of peers/mentors
- “Laboratory” ripe for trainees in high priority research areas:
  - Prevention of HLBS Conditions
  - Dissemination and Implementation research
  - Pragmatic clinical trials
  - Data Science
  - Health Equity
  - Community Engaged/Participatory Research
PBRN Research Methods (PBRM) Certificate Program

- Comprehensive curriculum
- Matched mentees and mentors
- has provided training to 50 new PBRN investigators
  - 2 graduates also participated in the 2018 NHLBI’s Saunders-Watkins Leadership Workshop in Health Disparities and Implementation Research for Early-Stage Investigators

https://www.cdnetwork.org/pbrn
Research opportunities for every career stage

NIH programs help to prepare the skilled, creative and diverse biomedical research workforce of tomorrow

https://researchtraining.nih.gov/
Stepping Stones to Success: Mechanisms to Support the Development of a Diverse Biomedical Workforce

Medical and Graduate School
- Fellowship and Training Grants (F32, T32)
- ESI Grants (Ks, R25, R35, R56, K-R03)
- NIH Stimulating Access to Research in Residency (StARR) (R38)
- NIH Stimulating Access to Research in Residency Transition Scholar (StARRTS) (K38)

High School and College
- Summer Research Education (R25) Diversity Supplement Program

Established Investor
- Fellowship and Training Grants (F32, T32)
- Career Development Awards
- NHLBI Physician Scientist ESI R01

Early Career
- NIH Stimulating Access to Research in Residency (StARR) (R38)
Information about how NIH promotes a diverse scientific research workforce

Notice of NIH's Interest in Diversity

Notice Number: NOT-OD-20-031

Key Dates
Release Date: November 22, 2019

https://extramural-diversity.nih.gov/
NHLBI Diversity Training Programs

- **Diversity Supplements**
  - NHLBI “parent award”, e.g., R01s
  - High School → Early Career faculty

- **T32 Training**
  - [T32 Training Program for Institutions That Promote Diversity](#)
  - [Additional T32 training slots to Enhance Research Training Workforce Diversity](#)

- **Diversity K01**
NIH Loan Repayment Program

- Designed to recruit and retain highly qualified health professionals into biomedical or biobehavioral research careers.
- The escalating costs of advanced education and training in medicine and clinical specialties are forcing some scientists to abandon their research careers for higher-paying private industry or private practice careers.
- The LRPs counteract that financial pressure by repaying up to $50,000 annually of a researcher's qualified educational debt in return for a commitment to engage in NIH mission-relevant research.
- There are eight LRPs, five for researchers not employed by NIH (Extramural) and three for researchers employed by NIH (Intramural).

https://www.lrp.nih.gov/
Questions?